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Date of signature and deposit - December 18, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

EDWARD NELSON FULLER

Serial No. 10/589599

Filed: August 16, 2006

For: Hybrid Micro/Macro Plate Valve

)

) Confirmation No. TBA

)

) Group Art Unit: TBA

)

) Examiner TBA

)

) Attorney Docket 1-24872

)

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Honorable Sir:

Pursuant to 37 C.F.R. 1.97(b), record is hereby made of information that the Patent Office may wish to consider in connection with its examination of the above-identified application. A completed PTO/SB/O8 form is enclosed along with copies of any such information with the exception of U.S. patent documents. As of the date of mailing of this paper a first office action on the merits has not been mailed the above-identified application.

Respectfully submitted,



James D. Schweikert

Reg. No. 58,057

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One Maritime Plaza, Fifth Floor
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JAN 03 2007

PTO/SB/08a (07-05)

(SUBSTITUTE FOR FORM 1449A/PTO)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

APPLICATION NUMBER

10/589599

FILING DATE

August 16, 2006

FIRST NAMED INVENTOR

EDWARD NELSON FULLER

ART UNIT

TBA

EXAMINER NAME

TBA

ATTORNEY DOCKET NUMBER

1-24872

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

SHEET 1 OF 5

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	CITE No. ¹	DOCUMENT NUMBER	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	PAGES, COLUMNS, LINES WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		NUMBER-KIND CODE ² (IF KNOWN)			
		0,886,045	04-28-1908	EHRlich ET AL.	
		1,886,205	11-01-1932	LYFORD	
		1,926,031	09-12-1933	BOYNTON	
		2,412,205	12-10-1946	COOK	
		2,504,055	04-11-1950	THOMAS	
		2,840,107	06-24-1958	CAMPBELL	
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		3,031,747	05-01-1962	GREEN	
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		3,860,949	01-14-1975	STOECKERT ET AL.	
		4,005,454	01-25-1977	FROLOFF ET AL.	
		4,019,388	04-26-1977	HALL, II ET AL.	
		4,023,725	05-17-1977	IVETT ET AL.	
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		4,181,249	01-01-1980	PETERSON ET AL.	
		4,298,023	11-03-1981	MCGINNIS	
		4,341,816	07-27-1982	LAUTERBACH ET AL.	
		4,434,813	03-06-1984	MON	
		4,581,624	04-08-1986	O'CONNOR	
		4,628,576	12-16-1986	GIACHINO ET AL.	
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		4,772,935	09-20-1988	LAWLER ET AL.	
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		4,828,184	05-09-1989	GARDNER ET AL.	
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		5,050,838	09-24-1991	BEATTY ET AL.	
		5,054,522	10-08-1991	KOWANZ ET AL.	

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DATE CONSIDERED

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(SUBSTITUTE FOR FORM 1449A/PTO) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICATION NUMBER	10/589599
	FILING DATE	August 16, 2006
	FIRST NAMED INVENTOR	EDWARD NELSON FULLER
	ART UNIT	TBA
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	EXAMINER NAME	TBA
	ATTORNEY DOCKET NUMBER	1-24872
SHEET 2 OF 5		

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	CITE No. ¹	DOCUMENT NUMBER	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICATE OF CITED DOCUMENT	PAGES, COLUMNS, LINES WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		NUMBER-KIND CODE ² (IF KNOWN)			
		5,058,856	10-22-1991	GORDON ET AL.	
		5,061,914	10-29-1991	BUSCH ET AL.	
		5,064,165	11-12-1991	JERMAN	
		5,065,978	11-19-1991	ALBARDA ET AL.	
		5,066,533	11-19-1991	AMERICA ET AL.	
		5,069,419	12-03-1991	JERMAN	
		5,074,629	12-24-1991	ZDEBLICK	
		5,082,242	01-21-1992	BONNE ET AL.	
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		5,116,457	05-26-1992	JERMAN	
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		5,368,704	11-29-1994	MADOU ET AL.	
		5,375,919	12-27-1994	FURUHASHI	

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(SUBSTITUTE FOR FORM 1449-A/PTO) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICATION NUMBER	10/589599	
	FILING DATE	August 16, 2006	
	FIRST NAMED INVENTOR	EDWARD NELSON FULLER	
	ART UNIT	TBA	
	EXAMINER NAME	TBA	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		ATTORNEY DOCKET NUMBER	1-24872
SHEET 3 OF 5			

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		NUMBER-KIND CODE ² (IF KNOWN)			
		5,400,824	03-28-1995	GSCHWENDTNER ET AL.	
		5,417,235	05-23-1995	WISE ET AL.	
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		5,838,351	11-17-1998	WEBER	
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		6,581,640	06-24-2003	BARRON	
		6,637,722	10-28-2003	HUNNICUTT	
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	FILING DATE	August 16, 2006
	FIRST NAMED INVENTOR	EDWARD NELSON FULLER
	ART UNIT	TBA
	EXAMINER NAME	TBA
SHEET 4 OF 5	ATTORNEY DOCKET NUMBER	1-24872

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		NUMBER-KIND CODE ² (IF KNOWN)			
		2002/0174891	11-28-2002	MALUF ET AL.	
		2003/0092526	05-15-2003	HUNNICUTT ET AL.	
		2003/0098612	05-29-2003	MALUF ET AL.	
		2006/0218953	10-05-2006	HIROTA	

FOREIGN PATENT DOCUMENTS

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		COUNTRY CODE NUMBER KIND CODE			
		DE2215526	10-04-1973	LICENTIA GMBH	
		DE2930779	02-07-1980	TOKYO SHIBAURA ELECTRIC CO	
		DE3401404	07-25-1985	BOSCH GMBH ROBERT (DE)	
		DE4101575	07-23-1992	BOSCH GMBH ROBERT (DE)	
		DE4417251	11-23-1995	BOSCH GMBH ROBERT (DE)	
		DE4422942	01-04-1996	BOSCH GMBH ROBERT (DE)	
		EP250948	01-07-1988	FRAUNHOFER GES FORSCHUNG (DE)	
		EP261972	03-30-1988	UNIV LELAND STANFORD JUNIOR (US)	
		GB2238267	05-29-1991	STC PLC (GB)	
		WO00/14415	03-16-2000	LUCAS NOVASENSOR (US) et al.	
		WO99/16096	04-01-1999	MCNC et al.	

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SHEET 5 OF 5

APPLICATION NUMBER

10/589599

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FIRST NAMED INVENTOR

EDWARD NELSON FULLER

ART UNIT

TBA

EXAMINER NAME

TBA

ATTORNEY DOCKET NUMBER

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Examiner
Initials*

Cite
No.¹

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

"A Silicon Microvalve For The Proportional Control Of Fluids" by K.R. Williams, N.I. Maluf, E.N. Fuller, R.J. Barron, D.P. Jaeggi, and B.P. van Drieënhuizen, TRANSDUCERS '99, Proc. 10th International Conference on Solid State Sensors and Actuators, held June 7-10, 1999, Sendai, JAPAN, pp. 18-21.

"Process for in-plane and out-of-plane single-crystal-silicon thermal microactuators"; J. Mark Noworolski, et al.; *Sensors and Actuators A* 55 (1996); pp. 65-69.

Ayón et al., "Etching Characteristics and Profile Control in a Time Multiplexed ICP Etcher," Proc. Of Solid State Sensor and Actuator Workshop Technical Digest, Hilton Head SC, (June 1998) 41-44.

Bartha et al., "Low Temperature Etching of Si in High Density Plasma Using SF₆/O₂," Microelectronic Engineering, Elsevier Science B.V., vol. 27, (1995) 453-456.

Fung et al., "Deep Etching of Silicon Using Plasma" Proc. Of the Workshop on Micromachining and Micropackaging of Transducers, (Nov. 7-8, 1984) pp. 159-164.

IEEE Technical Digest entitled "Compliant Electro-thermal Microactuators", J. Jonsmann, O. Sigmund, S. Bouwstra, Twelfth IEEE International Conference on Micro Electro Mechanical Systems held January 17-21, 1999, Orlando, Florida, pp. 588 - 593, IEEE Catalog Number: 99CH36291C.

Klaassen et al., "Silicon Fusion Bonding and Deep Reactive Ion Etching; A New Technology for Microstructures," Proc., Transducers 95 Stockholm Sweden, (1995) 556-559.

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Petersen et al. "Surfaced Micromachined Structures Fabricated with Silicon Fusion Bonding" Proc., Transducers 91, (Jun. 1992) pp. 397-399.

Yunkin et al., "Highly Anisotropic Selective Reactive Ion Etching of Deep Trenches in Silicon," *Microelectronic Engineering*, Elsevier Science B.V., vol. 23, (1994) pp. 373-376.

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